Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for driving an infusion pump motor, comprising the steps of:

determining a position in a pump cycle; and

determining a flow rate;

determining the electrical current value for driving the infusion pump stepper motor in response, at least in part, to the position in the pump cycle and the flow rate as separate factors.

Claim 2 (original):   The method of claim 1, wherein the position in the pump cycle and the electrical current value are related to each other in a relationship in a database.

Claim 3 (cancelled).

Claim 4 (currently amended): The method of claim 3claim 1, wherein the position in the pump cycle, the flow rate and the current value are stored in a database, and wherein the position in the pump cycle and the flow rate are related to the electrical current value.

Claim 5 (currently amended): The method of claim 3claim 1, further comprising the step of modifying the electrical current value in response to temperature information.

Claim 6 (currently amended): The method of claim 3claim 1, further comprising the step of modifying the electrical current value in response to distal pressure information.

Claim 7 (currently amended): The method of claim 3claim 1, further comprising the step of modifying the electrical current value in response to an elapsed time value.

Claim 8 (currently amended): The method of ~~claim 3~~claim 1, further comprising the step of modifying the electrical current value in response to the age of the infusion pump motor.

Claim 9 (original): The method of claim 1, further comprising the step of half-stepping the infusion pump motor.

Claim 10 (original): The method of claim 1, further comprising the step of microstepping the infusion pump motor.

Claim 11 (currently amended): A system comprising:

a sensor having an output;

a motor controller having an output responsive to the sensor output, the motor controller configured to determine whether a motor controller output should account for the sensor output;

a current driver having an electrical current output responsive to the motor controller output;

a stepper motor responsive to the electrical current output.

Claim 12 (original): The system of claim 11 wherein the stepper motor is contained within an infusion pump.

Claim 13 (original): The system of claim 12 wherein the infusion pump provides for operation under battery power.

Claim 14 (original): The system of claim 11 wherein the output of the sensor is responsive to temperature changes.

Claim 15 (original): The system of claim 11 wherein the output of the sensor is responsive to backpressure changes.

Claim 16 (currently amended):   The system of claim 11 <u>which includes an additional sensor, and</u> wherein the output of the <u>additional</u> sensor is responsive to changes in the position of the stepper motor.

Claim 17 (original):   The system of claim 11 wherein the output of the motor controller is responsive to changes in the age of tubing used for administering medication.

Claim 18 (original):   The system of claim 11 wherein the output of the motor controller is responsive to changes in the age of the stepper motor.

Claim 19 (original):   The system of claim 11 further comprising a memory containing data wherein the electrical current output is responsive to the data and the sensor output.

Claim 20 (original):   The system of claim 19 wherein the controller and memory are within a microcontroller.

Claim 21 (original):   The system of claim 19 wherein the output of the sensor is responsive to temperature changes.

Claim 22 (original):   The system of claim 19 wherein the output of the sensor is responsive to backpressure changes.

Claim 23 (currently amended):   The system of claim 19 <u>which includes an additional sensor, and</u> wherein the output of the <u>additional</u> sensor is responsive to changes in the position of the stepper motor.

Claim 24 (original):   The system of claim 11 further comprising one or more additional sensors having outputs, wherein the output of the motor controller is responsive to the sensor outputs, and wherein the output of at least one of the sensors is responsive to the position of the stepper motor.

Claim 25 (currently amended):   A system comprising:

a sensor having an output;

a motor controller having an output responsive to the sensor output, the motor controller configured to determine whether a motor controller output should account for the sensor output;

a current driver having an electrical current output responsive to the motor controller output;

a stepper motor responsive to the electrical current output, the stepper motor contained within an infusion pump providing for operation under battery power.

Claim 26 (original):   The system of claim 25 wherein the output of the sensor is responsive to temperature changes.

Claim 27 (original):   The system of claim 25 wherein the output of the sensor is responsive to backpressure changes.

Claim 28 (currently amended):   The system of claim 25 which includes an additional sensor and wherein the output of the additional sensor is responsive to changes in the position of the stepper motor.

Claim 29 (original):   The system of claim 25 wherein the output of the motor controller is responsive to changes in the age of tubing used for administering medication.

Claim 30 (original):   The system of claim 25 wherein the output of the motor controller is responsive to changes in the age of the stepper motor.

Claim 31 (original):   The system of claim 25 further comprising a memory containing data wherein the electrical current output is responsive to the data and the sensor output.

Claim 32 (original):   The system of claim 31 wherein the output of the sensor is responsive to temperature changes.

Claim 33 (original):   The system of claim 31 wherein the output of the sensor is responsive to backpressure changes.

Claim 34 (currently amended):   The system of claim 31 <u>which includes an additional sensor and</u> wherein the output of the <u>additional</u> sensor is responsive to changes in the position of the stepper motor.